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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,805	11/06/2001	Shun Ueki	4034-4	4351

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EXAMINER

DUONG, TAI V

ART UNIT PAPER NUMBER

2871

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/985,805

Applicant(s)

UEKI ET AL.

Examiner

Tai Duong

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
4a) Of the above claim(s) 3, 11-21 and 24-48 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 4-10, 22 and 23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/6/02, 6/2/03, 11/5/03, 6/30/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's election without traverse of Subspecies A1 (claims 5 and 6) of Group I in the reply filed on 5/20/04 is acknowledged.

Claims 3, 11-21 and 24-48 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5/20/04.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al.

Note Figs. 10, 11 and 14B which identically disclose the claimed reflective display device 1401 comprising a display layer 22; an optical element 19 placed on an observer side of said display layer; and a reflection element 16 placed on a side of said display layer opposite to said observer side, wherein said optical element has a principal plane including a plurality of tilt faces (1001, 1101) tilted with respect to a display plane, and a light ray incident on said display layer through said optical element

Art Unit: 2871

and reflected by said reflection element (light ray 25 of Fig. 14B) is allowed to outgo in "a direction *roughly normal* to said display plane"; the tilt faces (1001, 1101) are tilted at 7 degrees; and the light ray is emitted from a first light source 1402 placed on said observer side of said optical element at a position tilted toward the upper side of said display plane with respect to the direction normal of said display plane (col.15, line 1 – col. 16, line 9; col. 17, lines 60-67). Since the instant specification does *not* define in which angle range a light ray can be considered as "*roughly normal* to the display plane", the light ray 25 of Fig. 14B can be considered as "*roughly normal* to said display plane". Also, note in Figs. 10 and 11 the plurality of other faces of said optical element 19 having an angle of about 90 degrees with respect to said display plane.

Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 60-233624 cited by Applicant.

Note Figs. 1, 2(B) and the Abstract which identically disclose the claimed reflective display device 1 comprising a display layer 3; an optical element 4 placed on an observer side of said display layer; and a reflection element 2 placed on a side of said display layer opposite to said observer side, wherein said optical element has a principal plane including a plurality of tilt faces tilted with respect to a display plane, and a light ray incident on said display layer through said optical element and reflected by said reflection element (light ray 12 of Fig. 1) is allowed to outgo in "a direction *roughly normal* to said display plane"; and the light ray 11 is emitted from a first light source placed on said observer side of said optical element at a position tilted toward the upper

side of said display plane with respect to the direction normal of said display plane.

Since the instant specification does *not* define in which angle range a light ray can be considered as "*roughly normal* to the display plane", the light ray 12 of Fig. 1 can be considered as "*roughly normal* to said display plane".

Claims 1, 2, 4, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Yano et al cited by Applicant.

Note Figs. 1-3 which identically disclose the claimed reflective display device comprising a display layer 62; an optical element 1 placed on an observer side of said display layer; and a reflection element (7, 64) placed on a side of said display layer opposite to said observer side, wherein said optical element has a principal plane including a plurality of tilt faces 21 tilted with respect to a display plane, and a light ray incident on said display layer through said optical element and reflected by said reflection element (light rays α, γ of Fig. 3) is allowed to outgo in "a direction *roughly normal* to said display plane"; a scattering element 4 for scattering light reflected by said reflection element; and the tilt faces 21 are tilted from 35 to 42 degrees (col. 5, lines 54-65; col. 11, lines 18-67). Since the instant specification does *not* define in which angle range a light ray can be considered as "*roughly normal* to the display plane", the light rays γ, α of Fig. 3 can be considered as "*roughly normal* to said display plane".

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2871

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al, JP 60-233624 or Yano et al in view of Davis et al.

The only difference between the reflective display device of Nakamura et al and that of the instant claims is an anti-reflection film being formed on said optical element on said observer side or the plurality of tilt faces of said optical element being subjected to antiglare treatment. However, Davis et al disclose that it was known to employ an anti-reflection film or antiglare treatment (col. 10, lines 24-29). Thus, it would have been obvious to a person of ordinary skill in the art in view of Davis et al to employ an anti-reflection film or antiglare treatment on the optical element of the device of Nakamura, JP 60-233624 or Yano et al for preventing glare and for easy to see the displayed image.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


TVD

07/04


TOANTON
PRIMARY EXAMINER